

New North American Heteroptera.

By E. P. VAN DUZEE, Buffalo, N. Y.

The species described below have come into my hands for study from collectors in various parts of the country during the past five years. It is often annoying and undesirable to have species sent out under MS. names, especially if the publication of the descriptions is long delayed, and this is my excuse for the perpetration of a fragmentary paper such as this. All of these are interesting additions to our fauna, and in each case were received from well known and experienced students of our insects.

Narnia snowi n. sp.

Broader and less narrowed posteriorly than *femorata* and its allies. Pale ferruginous testaceous; head, front of the prothorax, deflected base of the pronotum, scutellum, elytra, pectus, meso- and metapleura and the dilatation of the posterior tibiæ black or dark fuscous. Head with the apex and a longitudinal line each side both above and below the base of the antennæ ferruginous. Prothorax and pale hind margin of the metapleura coarsely, the scutellum and hemelytra finely and closely punctured; extreme tip of the scutellum and costa of the elytra ferruginous, the middle of the corium with a transverse linear white band, not attaining the costal margin. Hind femora becoming piceous toward the apex, the spines and tubercules black; dilatation of the hind tibiæ rather broad, inner margin about twice the width of the outer and marked with a white sub-basal spot, the edge beyond the middle and along the undilated apical one-third sparsely spinose. Venter more or less mottled and infuscated, with a strong sulcus reaching the apex of the 5th segment. Rostrum passing the middle of the fourth ventral segment, blackish, with the basal joint pale. Antennæ substantially as in *femorata*. Length 16 mm.

Described from one female specimen received from Prof. F. H. Snow and captured by him at Douglas, Arizona, in August.

I have before me three male and two female examples of a *Narnia* that I take to be *femorata*. In these, however, the basal joint of the antennæ is scarcely darker than the others, the humeral angles are not "acute" although more prominent than in the allied forms, and the transverse white vitta on the corium is indicated only by an obscure band of white hairs that may be almost obsolete in some examples; the form of the dilatation of the hind tibiæ is, however, exactly as described by

Stal, and for the present I prefer to place it as the northern form of his species. Two of my specimens were taken at Tucson, Arizona, by Prof. E. B. Wilson, two were captured in Yuma Co., Arizona, by Prof. Snow in June, and one was taken at Congress Junction, Arizona, in July by Prof. Snow. Prof. Wilson has also sent me two examples of a smaller paler species from La Jolla, California, that I place as Stal's *pallidicornis*. They answer to his description in everything except that the head is almost entirely black and the rostrum is longer, attaining the apex of the fifth segment. This species has the apical notch of the male genital segment deeper and narrower than in *femorata*.

Narnia wilsoni n. sp.

Deep piceous black; lower surface of the head, antennæ, base of the rostrum, bucculæ and legs bright ferruginous; abdomen testaceous; extreme tip of the scutellum and a transverse linear band on the middle of the corium, not attaining the costa, white. Antennæ shorter and thicker than in any of our other described species, the basal joint scarcely surpassing the apex of the head. Pronotum and scutellum closely punctate. Elytra deep velvety black, with the costa slenderly pale; membrane fuscous black, the nervures undulating and here and there anastomosing. Hind legs piceous-black, becoming ferruginous on the base and outer side of the femora and knees; simple apex of the tibiæ and the tarsi bright ferruginous, tibial dilatation about as in *snowi*, almost linear without, within about twice wider, with a few strong teeth from near the base to the apex of the tibia, and showing no indication of the white mark found in our other species. Rostrum short, scarcely surpassing the base of the fourth ventral segment. Venter covered with a white mealy pubescence which omits the rather broad median sulcus. Length 12 mm.

Described from two female examples taken at La Jolla, California, in August, by Prof. E. B. Wilson.

This is a very distinct and striking species. With *snowi* it forms a group for which I would suggest the subgeneric name of *Xerocoris*, which with the study of more extensive material may be raised to generic value. It may be characterized by a broader form, wider connexivum, more strongly depressed posterior margin of the pronotum, a proportionately shorter head, shorter and stouter antennæ, a shorter rostrum and a different vestiture. In both these species the disk of the pronotum is flatter with a distinct median carina which is scarcely indicated

in *Narnia* proper, and the lateral margins are much more distinctly carinated, the surface of the body, also, is not covered with a close grayish mottled pubescence, as in *femorata* and *pallidicornis*, but the head, pronotum, antennæ and legs are well covered with stiff blackish hairs that become concolorous on the pale disk of the pronotum in *snowi*.

The shorter basal and fourth joints of the antennæ and the less dilated hind tibiæ seem to be the best characters for separating *Narnia* from *Leptoglossus*. The length of the rostrum is variable, and while distinctly longer in *Narnia* proper, in *Xerocoris* it is scarcely longer than in *Leptoglossus*. In *Narnia* proper the vestiture is quite distinct.

***Alydus setosus* n. sp.**

Allied to *eurinus* in form but pale greyish, marked with fuscous somewhat as in *Stachyoenemis apicalis*. Whole body except the elytra clothed with scattering black setæ and in places with a matted greyish pubescence. Postocular portion of the head longer and more narrowed posteriorly and the vertex more convex than in *eurinus*. Apical joint of the antennæ strongly thickened hardly as long as the two preceding united. Pronotum a little narrower anteriorly than in *eurinus*, the latero-posterior margins broadly depressed and a little reflexed. Rostrum attaining the intermediate coxæ. Posterior femora longer and stouter than in *eurinus* with from three to five long teeth and several smaller ones near the apex. Posterior coxæ placed farther apart than in *eurinus*. Claspers of the male approximate, thick, spindle-shaped, their divergent apices somewhat flattened and obtusely pointed.

Color testaceous grey. Head paler beneath; the gula, a broad vitta on each side beneath the antennæ, and a still broader dorsal vitta blackish, the latter narrowed and intensified on the base of the head and bisected by a median longitudinal pale line. Antennæ pale brownish, apical joint a little darker, the outside of the basal joint with a dark line; all but the apical joint black-setose. Pronotum with a broad blackish median ray which becomes evanescent posteriorly and is bisected by a conspicuous whitish median line; pale areas with scattering fuscous punctures. In some examples there is a faint blackish submarginal ray anteriorly. Scutellum a little dusky on the sides and base and with a pale median line continuing the white calloused and slender apex. Elytra punctured with pale brown, especially toward their inner margin and apex, their extreme tip and the inner field blackish; nervures pale; apical margin narrowly white and calloused. Membrane brownish pellucid with the nervures but little branched. Beneath paler, sternum and a double lateral vitta on the pleural pieces fuscous, venter dusky on the base and sides, separated by a lateral pale vitta, edge of the connexivum and pos-

terior margin of the ventral segments more or less broadly pale ; stigmata, disk of the genital pieces of the female, and the latero-apical margin of the pygofer of the male black. Claspers of the male whitish. Legs dotted and more or less clouded on the femora with fuscous, clothed with stiff black hairs ; femoral spines black.

Described from four examples taken by Prof. F. H. Snow on the Baboquivari Mountains, Arizona, one male taken in Galatin Co., Montana, at an elevation of 7500 feet, by M. R. Benton and kindly sent to me by Prof. R. A. Cooley, and one female taken in Big Canon, Davis Co., Utah, in August by Mr. G. W. Browning. The two latter specimens are darker in their general color with the elytra quite uniformly punctured with fuscous and the pale rays on the base of the vertex and anterior margin of the pronotum tinged with pink. All these specimens show a row of black or piceous polished spots on either side of the venter beneath the stigmata. This strongly marked species exhibits a certain transition toward genus *Stachyocnemis*. It has the color markings of the latter genus and the form and proportions of the former, but the form of the apical joint of the antennæ and the spacing of the posterior coxæ approach that found in *Stachyocnemis*. The thick approximate claspers of the male will distinguish this form from any previously-described North American species.

***Jalysus wickhami* n. sp.**

Closely allied to *spinosus* Say, but smaller and more slender with the second joint of the antennæ and the basal joint of the rostrum proportionately shorter. Color fulvo-testaceous, paler on the elytra, base of the legs and pronotal carinæ. Eyes, fourth antennal joint, extreme tip of the corium, apex of the tibiæ, the tarsi except at base and the rostrum toward its apex, black ; venter rufo-testaceous, sternum obscured or brownish. Metapleural and scutellar spines distinctly shorter than in *spinosus* ; posterior lobe of the pronotum strongly punctured, the sides and middle line distinctly carinate, the lateral carinæ continued almost to the humeral angles, not strongly abbreviated as is usually the case in *spinosus* ; apex of the fourth antennal joint white. Length 6-6½ mm.

Described from two males taken by Prof. H. F. Wickham at an altitude of over 7000 feet on the Inyo Mountains, California, in July, and one female taken at Tucson, Arizona, by Prof. F. H. Snow.

This species might readily be mistaken for our common

spinosus. It may most readily be distinguished by its slighter form, shorter second antennal joint, the more distinct lateral carinae of the pronotum and the less conspicuous metapleural spines. In this species there is an obvious elongated callous above the eyes and anterior to the ocelli, which is much less conspicuous in *spinosus*.

Peritrechus tristis n. sp.

Form of *fraternus* but smaller, black, opaque, scarcely covered with minute golden pubescence which is much longer and closer on the venter. Vertex, pronotum and scutellum coarsely punctate. Pronotum a little wider before than in *fraternus*, the sides more nearly parallel; posterior lobe but very feebly depressed and more closely punctured than the anterior, very obscurely touched with castaneous, particularly near the hind edge. Scutellum obscurely bordered with castaneous posteriorly. Elytra testaceous brown or blackish, the nervures pale. There is a smooth whitish spot near the inner angle and about three irregular ones in a longitudinal row exterior to this. Membrane blackish, nervures and a spot at base, more or less distinct, pale. Beneath black touched with testaceous next the coxæ. Throat and pleural pieces opaque, coarsely punctate; hind edge of the metapleura and the venter impunctate, the latter polished and golden pubescent. Legs piceous black, polished, paler on the tibiae and tarsi; knees and base of the femora testaceous. Antennæ fuscous, hairy; basal joint a little exceeding the apex of the head, second longest, third shorter than the fourth but considerably longer than the first. Rostrum reaching to the intermediate coxæ, piceous, paler on the second joint and tip of the first.

Described from six specimens collected about Victoria and Wellington, Vancouver Island, by Rev. Geo. W. Taylor during March, April and October. This is a smaller and darker species than our eastern *fraternus*, the elytra are darker and more mottled, and the posterior lobe of the pronotum is not pale as in that species. The European *Stygnus arenarius* bears a close resemblance to the present species but is only about one half its size.

Eremocoris obscurus n. sp.

Allied to *ferus* but darker in color with the pronotum a little wider posteriorly and the abdomen proportionately broader behind the middle. Color black, opaque, head finely chagrined, tip of the tylus tinged with castaneous. Antennæ piceous black, the incisures pale, basal joint shortest, second a little longer than either of the others which are subequal. Rostrum testaceous, basal joint piceous reaching almost to the

base of the head, second longest reaching the anterior coxæ, third attaining the intermediate coxæ. Pronotum, anterior lobe a little more convex than in *ferus*, feebly impressed on the middle with a few minute scattering punctures; posterior lobe narrow, coarsely punctured, but feebly differentiated from the anterior lobe. Scutellum coarsely punctured, depressed anteriorly and posteriorly with a feeble longitudinal carina. Elytra blackish fuscous inclined to castaneous on the clavus and disk of the corium posteriorly; basal third of the corium testaceous; this pale color shows a tendency to invade the outer margin of the clavus and extends more or less obviously along the costa. Membrane black, when fully developed attaining the tip of the abdomen, and marked with a small pale spot at the basal and each lateral angle, the nervures distinct but scarcely paler as in *ferus*. Beneath black marked with castaneous against the coxæ. Legs piceous black, polished, becoming paler on the tibiæ, tarsi and base of the femora; the anterior femora have two large and several minute teeth beneath; intermediate and posterior femora a little more thickened than in *ferus*. In the male the colors are somewhat paler than in the female. Length 6-6½ mm.

Described from one male and two female examples taken at Wellington, Vancouver Island, during March and April by Rev. Geo. W. Taylor, an enthusiastic and successful collector from whom I have received some interesting Hemiptera. In this species the pronotum is wider on the anterior lobe than in *ferus*, the abdomen is proportionately broader behind the middle, the intermediate and posterior femora are thicker, and in the specimens before me the body wants the ciliæ of soft hairs that are present in that species.

Xestocoris n. gen.

Ovate oblong, widest across the apex of the clavus; polished. Head about two-thirds the length of the pronotum, subcylindric, horizontal, triangularly narrowed before; clypeus prominent; bucculæ but little elevated, forming a distinct lobe either side of the base of the rostrum. Ocelli placed much nearer to the eyes than to the middle line of the vertex. Rostrum passing the intermediate coxæ, first joint reaching the base of the head, second distinctly longer than the third, fourth shortest. Antennæ stout, first joint surpassing the apex of the head by about one-half its length, second and fourth subequal, third shortest. Pronotum broad, length to humeral width as about 5:8, sides feebly carinate, distinctly rounded to the head anteriorly, transverse impression feeble, placed close to the posterior margin, the humeri prominent and angular. Scutellum depressed, to the level of the clavus. Clavus triseriate punctate. Third ventral suture strongly curved forward. Stigmata of the apical segments minute, placed at about their middle. Sides of the fourth

ventral segment with three small opaque spots two of which are approximate and placed anteriorly. Anterior femora incrassated, armed with about four minute teeth one of which is longer and stouter.

In Stal's synopsis of the extra-European genera of the *Lethæria*, to which subfamily this genus pertains, it would run nearest to section "14 (11)" but it is quite distinct from the African genus *Androgæus* there defined. I can find no European genus in which it can be placed.

Xestocoris nitens n. sp.

Piceous black, highly polished; above long setose; basal two joints of the antennæ, rostrum, clypeus, anterior and posterior margins and very slender lateral carinæ of the pronotum, clavus, corium, legs, and apex of the abdomen, testaceous or rufo-testaceous; coxæ and narrow margins of the pleural pieces more or less rufous. Humeri prominent, rectangular, pale. Head and anterior lobe of the pronotum impunctate, the narrow hind margin of the pronotum, the scutellum, and the elytra with coarse scattering punctures which form a single line on either margin of the scutellum, three on the clavus, and about three imperfect rows on the disk of the corium and one on the inner edge of the broad costal area. Membrane short, the nervures nearly obsolete. Venter piceous or black. Eyes rufous. In the specimens before me there are a few coarse punctures close to the anterior margin of the pronotum and a little group near the centre of its disk, and in some the disk of the corium is embrowned. By oblique light and under a lense the dark surfaces exhibit very beautiful metallic blue reflections. Length 3-3½ mm.

Described from nine examples representing both sexes. Eight of these were taken by me at Colden, near Buffalo, New York, in August; the other specimen was taken by Mr. Philip Fischer at Buffalo in March.

Reduvius (Opsicætus) senilis n. sp.

Much smaller and paler in color than *personatus*. Pale testaceous brown inclining to piceous on the head, pronotum and scutellum; hemelytra clouded with brown with an indefinite spot behind the scutellum, the base of the costa and the apex of the corium whitish; whole surface covered with rather long hairs. Head more tumid behind the eyes, a little narrower and more deflexed before the eyes than in *personatus*; eyes and vertex about the ocelli black; anterior lobe of the pronotum strongly convex and polished, with a deep median sulcus; posterior lobe rather strongly rastrate-punctate, the collar of the anterior lobe shorter than in *personatus*. Scutellum shorter with the apical spine less developed than in the allied species. Beneath paler with the sides and apex of the venter in some individuals suffused with blackish; the metapleura and venter

sharply keeled through their whole length, the extreme edge of this keel piceous. Length 10 mm.

Described from three specimens taken by Prof. F. H. Snow in the Baboquivari Mountains, Arizona.

Reduvius personatus, the so-called "kissing-bug," is the only species of this large genus heretofore recorded from America. Most of the known species have their home in the palæarctic region but a few are found in the tropical portions of Asia and Africa. The species here described is but one of the interesting Hemiptera discovered by Prof. Snow in his entomological explorations in the far southwest.

A New *Cuterebra* from Nebraska.

By PAUL R. JONES, Lincoln, Neb.

While on a collecting expedition near Glen, Sioux County, Nebraska, during the summer of 1906, two specimens of *Cuterebra* were captured by Mr. Harry S. Smith. In determining them one was found to be *C. tenebrosa* Coquillett, and the other appeared to be new, the description of which is submitted below.

Cuterebra cyanella n. sp. ♀. Head black, front at narrowest point seven times as wide as the distance between the two posterior ocelli. Front on each side provided with two small, yellowish-gray triangular spots, one on the inner margin of the eye, and the other between it and the base of the antennæ. In addition to these there is another pollinose spot of similar size on the eye-margin of the face just below the lateral one of the front. Face black, sub-shining, destitute of pollen except for the spot mentioned, and a faint crescent-shaped mark on the lateral edges of the antennary pit. Antennary pit black, shining, pollinose behind the antenna. Antennæ black, third joint pollinose. Arista longer than the antennæ, loosely plumose, black at the base, yellow at apex. Thorax black, with a slight bluish cast, sub-shining, covered with fine black hairs, pleura with longer hair of similar color, and destitute of any oblique tuft of yellow pile in front of the base of the wings. Scutellum of same color, but the hair longer than that of the thorax. Abdomen shining steel-blue, anterior lateral margin of third, fourth and fifth segments pollinose be-